

WO9821991

Publication Title:

AN ANATOMIC DEVICE THAT MAY REPLACE THE SPIKES ON RUNNING SHOES

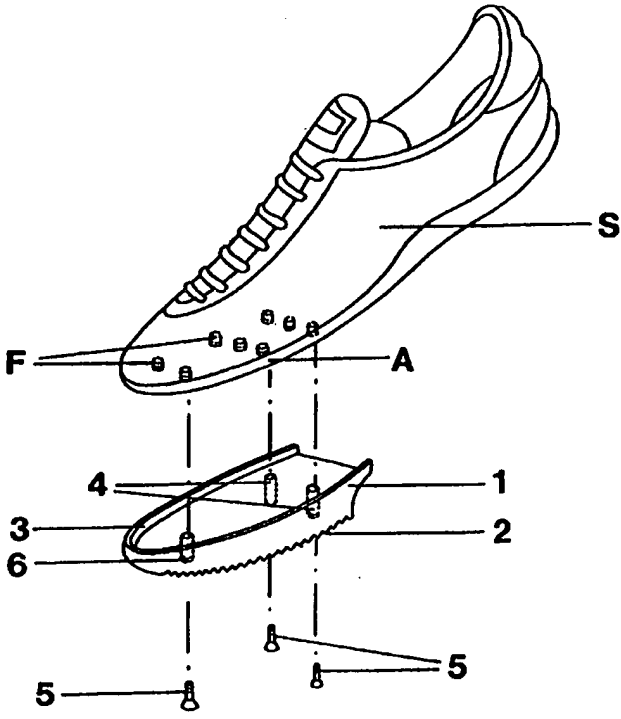
Abstract:

An anatomic device that may replace, even temporarily, the spikes on spiked running shoes, for the runs of athletes and of anyone training, on different soils, consisting of a sole portion (1) provided with means (3, 4, 5, 6) for its application to the lower structure of the front part (A) of running spiked shoes (S), for replacement or as an alternative, even temporarily, of the spikes used on rubber tracks and similar, so as to fit one and the same running shoes to the optimal running conditions on any soil: field, asphalt or other.

Data supplied from the esp@cenet database - <http://ep.espacenet.com>



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : A43C 15/02, A43B 13/36</p>	<p>A1</p>	<p>(11) International Publication Number: WO 98/21991 (43) International Publication Date: 28 May 1998 (28.05.98)</p>
<p>(21) International Application Number: PCT/IT97/00022 (22) International Filing Date: 31 January 1997 (31.01.97) (30) Priority Data: RM96A000792 20 November 1996 (20.11.96) IT (71)(72) Applicant and Inventor: OLIVETTI, Luca [IT/IT]; Via Bonaldo Stringher, 27, I-00191 Roma (IT). (74) Agent: MASCIOLI, Alessandro; Via Urbana, 20, I-00184 Roma (IT).</p>		<p>(81) Designated States: JP, US, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report.</p>
<p>(54) Title: AN ANATOMIC DEVICE THAT MAY REPLACE THE SPIKES ON RUNNING SHOES</p> <p>(57) Abstract</p> <p>An anatomic device that may replace, even temporarily, the spikes on spiked running shoes, for the runs of athletes and of anyone training, on different soils, consisting of a sole portion (1) provided with means (3, 4, 5, 6) for its application to the lower structure of the front part (A) of running spiked shoes (S), for replacement or as an alternative, even temporarily, of the spikes used on rubber tracks and similar, so as to fit one and the same running shoes to the optimal running conditions on any soil: field, asphalt or other.</p> 		

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakhstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

AN ANATOMIC DEVICE THAT MAY REPLACE THE SPIKES ON RUNNING SHOES.

The present invention concerns an anatomic device that may replace, even temporarily, the spikes on spiked running shoes, for the runs of athletes and of anyone training, on different soils.

From the orthopaedic physiology it is known that for the correct running of human beings, the contact with the soil only with the front part of the foot is fundamental, for obtaining the necessary propulsive effort as well as for preventing possible problems with one's heels or with the backbone.

Until now, from the point of view of sports outfit and of the competition results of this correct manner of running, only the track-and-fields sports on the track fully exploits human anatomy: infact, the spiked shoes for sprinters and similar are completely lacking heels and are spiked only in correspondence with the front part of the foot.

It is the aim of the present invention determine a correct running for anyone and on any soil, even on asphalt, besides on rubber tracks and similar, where spiked shoes are used.

It is a further aim of the present invention to prevent, for anyone who wants to train in running, problems with the heels or the backbone, as well as to obtain considerable savings for athletes and sprinters.

The aims set forth are reached by means of the device according to the present invention, consisting of a portion of sole, provided with means for its application to the lower structure of the front part of running shoes, as a replacing or an alternative, even temporarily, so as to fit the same shoe to the optimal conditions of running on any soil: field, asphalt or of any other kind.

The advantages of the device according to the present invention are many and considerable:

- the cost of each replaceable sole portion is moderate;
- the replacing of the whole training shoe, due to use and wear of the soles, is prevented;

- with one single pair of running shoes or similar
 - which are notoriously cheap - the fitting for running on a track or on any other soil is obtained;
- even if the running shoes are not used on a track, a method benefit is obtained for what concerns the correct development of the muscles.

The present invention will be described more in detail hereinbelow relating to the enclosed drawings, in which one embodiment is shown.

Figure 1 shows an exploded axonmetric view of an anatomic device that may replace, even temporarily, the spikes on spiked running shoes, for the runs of athletes and of anyone training, on different soils.

Figure 2 shows a running spiked shoes provided with the device according to the present invention.

The enclosed figures show an anatomic device that may replace, even temporarily, the spikes on spiked running shoes, for the runs of athletes and of anyone training, on different soils, comprising:

- a replaceable sole portion 1, provided with treads 2 differentiated according to the running soil, and shaped with an upper structure 3 corresponding and fitting to the lower surface of the front part A of the running shoe S;
- a plurality of passing-through holes 4, realized in said sole portion 1, and corresponding to some of the holes F performed during realization in the lower structure of the front part A of the shoe, which are usually seat of the spikes to be inserted;
- a plurality of screws 5 or similar, that may be inserted into said holes 4, with the possible interposition of conic guides 6, for screwing into said holes F, for a linked application, that may be performed with the same key or tool usually provided for the insertion into said holes F of the conventional spikes for running on rubber tracks or similar.

In possible variants according to the present invention, layers of silicone may be provided for allowing a better adherence of the sole portion 1 to the lower surface of the front part A of the shoe, that may be fitted by pressure or squeezing of screws 5, to the shape of said shoe S.

CLAIMS

1. An anatomic device that may replace, even temporarily, the spikes on spiked running shoes, for the runs of athletes and of anyone training, on different soils, characterized in:
 - a replaceable sole portion (1), provided with treads (2) differentiated according to the running soil, and shaped with an upper structure (3) corresponding and fitting to the lower surface of the front part (A) of the running shoe (S);
 - a plurality of passing-through holes (4), realized in said sole portion (1), and corresponding to some of the holes (F) performed during realization in the lower structure of the front part (A) of the shoe, which are usually seat of the spikes to be inserted;
 - a plurality of screws (5) or similar, that may be inserted into said holes (4), with the possible interposition of conic guides (6), for screwing into said holes (F), for a linked application, that may be performed with the same key or tool usually provided for the insertion into said holes (F) of the conventional spikes for running on rubber tracks or similar.

2. A replaceable, anatomic device according to claim 1, characterized in the presence of silicone layers that may be fitted, by pressure and squeezing of screws 5, to the shape of said shoe (S).

FIG. 1

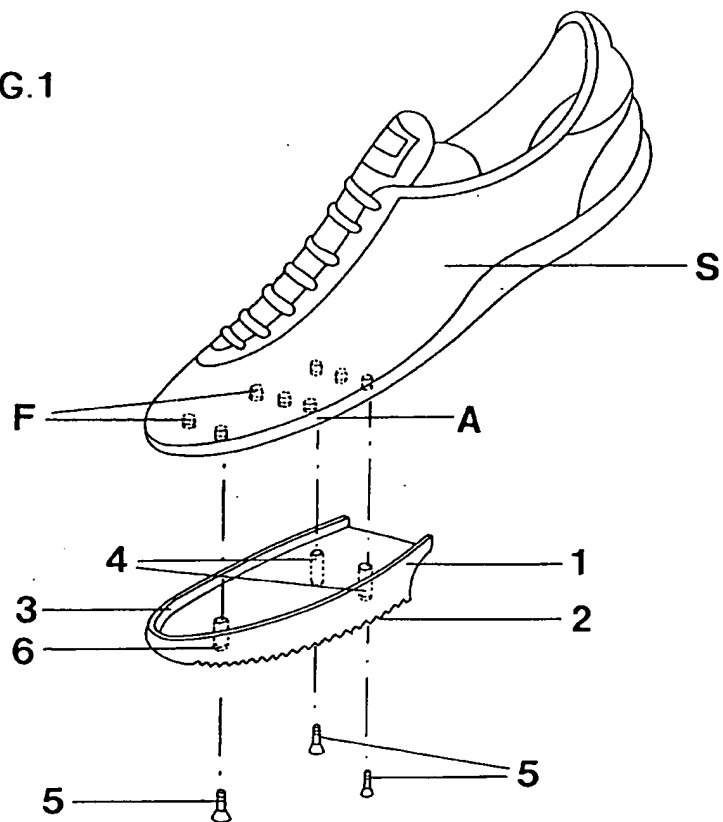
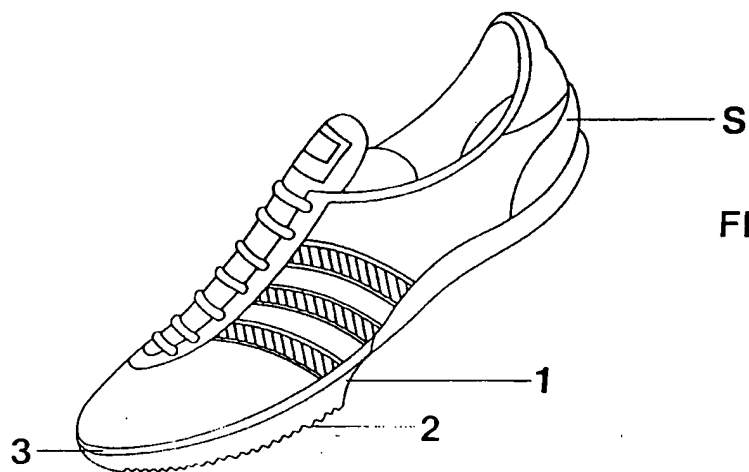


FIG. 2



INTERNATIONAL SEARCH REPORT

Inter. Classification No.
PCT/IT 97/00022

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A43C15/02 A43B13/36

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 A43C A43B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 43 29 186 A (S. LEDERER) 2 March 1995 see the whole document ---	1
A	US 3 807 061 A (J. KRUS) 30 April 1974 see the whole document ---	1
A	GB 789 807 A (W. PLOWMAN) 29 January 1958 see the whole document ---	1
A	US 3 538 628 A (A. EINSTEIN) 10 November 1970 see the whole document ---	1
A	US 3 328 901 A (R. STRICKLAND) 4 July 1967 see the whole document -----	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

10 July 1997

Date of mailing of the international search report

18.07.1997

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+ 31-70) 340-3016

Authorized officer

Declerck, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Publication No

PCT/IT 97/00022

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 4329186 A	02-03-95	NONE	
US 3807061 A	30-04-74	NONE	
GB 789807 A		NONE	
US 3538628 A	10-11-70	NONE	
US 3328901 A	04-07-67	NONE	